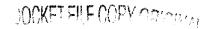


1801 Pennsylvania Avenue, NW Washington, DC 20006 202 887 2375 Kimberly M. Kirby Senior Manager FCC Affairs



ORIGINAL

EX PARTE OR LATE FILED

RECEIVED

JUL 14 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY



July 14, 1997

Mr. William F. Caton, Acting Secretary Federal Communications Commission 1919 M Street, NW Room 222 Washington, DC 20554

Re:

Ex Parte Presentation in CC Docket No. 97-137

Dear Mr. Caton:

On Friday, July 11, 1997, Carl Geisy (MCI), Kevin Moss, representing MCI, Steve Murray (MCI), Karen Reidy (MCI), Susan Jin Davis (MCI), Keith Seat (MCI), and the undersigned met with Melissa Waksman of the Policy Division of the CCB, Carol Mattey, Deputy Chief of the Policy Division of the CCB, Sarah Whitesell from the Policy Division of the CCB, and Anu Seam from the Competitive Pricing Division of the CCB. The purpose of the meeting was to discuss unbundled local switching. Attached is a brief outline of the topics discussed.

Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(2) of the Commission's rules.

Sincerely,

Kimberly M. Kirby

Attachment

CC:

Carol Mattey (CCB)
Melissa Waksman (CCB)
Sarah Whitesell (CCB)
Anu Seam (CCB)

(A) of Copies reste 0>2
(b) A5000



UNBUNDLED LOCAL SWITCHING

MCI Telecommunications
Corporation

July 11, 1997

Cocket 97-137 (Ameritech - N

CC Docket 97-137 (Ameritech -MI 271 Application)



Unbundled Switching

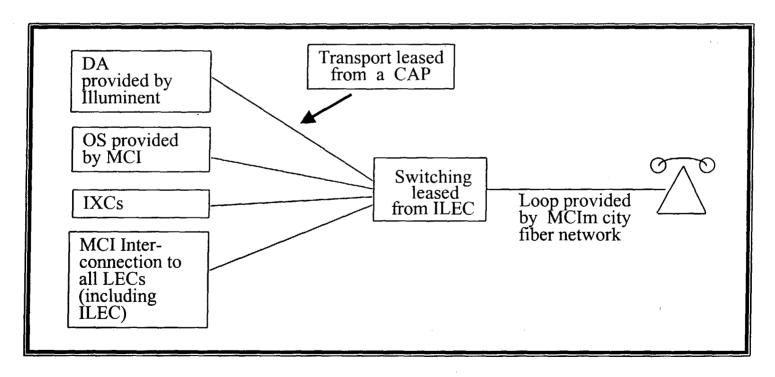
What is it and why do we want it?

- → What is unbundled switching?
- → Component parts
- → Not just another element
- → Opportunities and Benefits
- → Approach
- → Chronology
- → Current Problems



What is unbundled switching?

 In the extreme, MCI leases only the switching from the ILEC and provides ALL other elements itself or leases them from CAPs and CLECs.



rogressively replace Unbundled provided by the ILEC with memts provided by MCI, until the service fless based. This matrix depicts this MCI, until the service provided by the ILEC with migration process. CPU Network (Line) Port Customized Routing Billing Data (EMR/EDAS) AND AND AND AND AND AND AND AN	A = MCI or 3rd Party Provisioned	A = MCI or 3rd Party Provisioned	A = MCI or 3rd Party	A = MCI or 3rd Party	A = MCI or 3rd Party	A = MCl or			→	Page	2	3	2		X = ILEC Provisioned
provided by MCI, until the service with migration process. Pulse Based. This matrix depicts this matrix d	A A A A A	A A A	A	Α		Α		>	Α	>	Α	Α	P		Voicemail
on the provided by the ILEC with migration process. In the service of the based. This matrix depicts this	A A A A A	A	A	Α		A		A	×	×	×	×	×	×	911
DA DA DESCRIPTION OF THE PORT STATES OF THE PROVIDED BY AND STATES OF THE PORT OF THE PO	A A A A A	AAAA	A	A		A		A	A	A	Þ	×	×	×	
www. www. www. www. www. www. www. www	A A A A A	A A A A	A A A	AA	AA			Α	A	Α	Α	×	×	×	Other Services DA
wided by the ILEC with Interess of Ilec ments V	$\mathbf{x} = \left[egin{array}{c c} \mathbf{A} & \mathbf{B} & \mathbf{A} & \mathbf{A} \end{array} \right] = \mathbf{A} \cdot \left[egin{array}{c c} \mathbf{A} & \mathbf{B} & \mathbf{A} \end{array} \right] = \mathbf{A} \cdot \left[egin{array}{c c} \mathbf{A} & \mathbf{B} \end{array} \right]$	$oxed{\mathbb{E}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] \right] \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \right] \right] \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxeta \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \left[oxed{\mathbf{A}} \right] \right] + \mathbf{A} \left[oxed{\mathbf{A}} \left[oxed{\mathbf$	* V V X X	Align A &	Align A &	100	•	(X	X	X	X	×	X	
wwork (Line) Port Stomer (Line) Port Stomer (Line) Port	x A A A A A A A A		A STATE	$\mathbb{R}[\mathbf{A},\mathbf{B}] \cong \mathbf{A}[\mathbf{B}]$	A		X		X	X	×	×	X	×	
wided by the ILEC with MCI, until the service This matrix depicts this process. In	$oldsymbol{s} = oldsymbol{eta} \cdot oldsymbol{et$	IST IN A TOWN THE	A TA	AT)) (1)	C A	3	X	X	X	X	×	X	
wicated Verplace Unbundled Verplace Unbundled Verplace Unbundled Verplace Unbundled Verplace Unbundled Verplace Verplace Unbundled Verplace Verpl	$\mathbf{x} = [\mathbf{x} \cdot \mathbf{x} \cdot \mathbf{x}] = \mathbf{A}^* \oplus [\mathbf{A}^* \oplus \mathbf{x} \cdot \mathbf{A}^*] = \mathbf{A}^* \oplus [\mathbf{A}^* \oplus \mathbf{x} \cdot \mathbf{A}^*] = \mathbf{A}^* \oplus [\mathbf{A}^* \oplus \mathbf{x} \cdot \mathbf{A}^*]$	AZA	A		Karal Ask	K	•		X.	×	×	×	ķ	* X =	To profit the state of the stat
mmon Vided by the ILEC with Vided by the	A A A A A A	A A A A	A A A	AA	Α		Α		A	Α	×	×	×		
Ing Data (EMR/EDAS) Ing Data									×	×	×	×	×	×	
rical Features Image	$oldsymbol{A} = oldsymbol{A} = oldsymbol{A$	CONTRACTOR	A A A A	(東大学)	(東大学)		A		X	X	X	X	X	×	200 (100 m) (1
ing Data (EMR/EDAS) Image	A A A A A A A		HATEL AND A BEAUTIFUL ASSESSMENT	A	A		A.		X	×	×	×	Ž	×	
stomized Routing Video by the ILEC with vided by the ILEC with ILEC with ILEC with ILEC with ILEC with ILEC with Initial Features Video by the ILEC with Ilec wit	x	x x A A	× × A	×	×		×		×	×	×	×	×	×	Billing Data (EMR/EDAS)
wwork (Line) Port Vided by the ILEC with Full Unbundled Network	x x x	×	×	×	×		X		×	×	×	X	×		Customized Routing
y replace Unbundled X X X X X X X X X X X X X X X X X X X	X X X A A A A	×	×	×	×		×		×	×	×	×	×	×	Network (Line) Port
y replace Unbundled X X X X X X Y Process. Full Unbundled Network Elements X X X X X X X Y Plus MCI Provides Voice Mail Plus MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	X X X A A A A	x x A A	x x A	x x	×		X		×	×	×	×	×	×	СРИ
stomer (Line) Port State Post	X X X A A A A	× × A A	×	×	×		×		×	×	X	×	×	×	
process. Full Unbundled Network Elements Plus MCI provides Voice Mail Plus MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	× × A A A A	×	×	×	×		×		×	×	×	×	×	×	Local Switching Customer (Line) Port
Plus MCI provides own DA, OS & Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	X X X X X X A	X	×	X	X		×		×	X	×	X	×	X	Sollar Control of the
process. Full Unbundled Network Elements Plus MCI provides Voice Mail Plus MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	X X X X X X X X X X X X X X X X X X X	V X X X X	XXXX	To X Section 15 March	X 554		X		X	X	X	X	X	X	
Plus MCI provides Voice Mail Plus MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local		$\mathbf{x} = \mathbf{x} + \mathbf{x} + \mathbf{x}$	x	X	X		×		X	X	X	X	X	×	
process. Full Unbundled Network Elements Plus MCI Provides Voice Mail Plus MCI branded DA, OS MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	$oxed{\mathbf{x}} = oxed{\mathbf{x}} = oxed{\mathbf{x}}$	$\mathbf{x} = \mathbf{x} + \mathbf{x} + \mathbf{x} + \mathbf{x}$	$\mathbf{x} = \mathbf{x} + \mathbf{x} + \mathbf{x} + \mathbf{x}$	X	X	Х	X	4	X	X	X	X	X	×	
replace Unbundled Network Full Unbundled Network Elements Plus MCI provides Voice Mail Plus MCI provides own DA, OS & Voicemail MCI provided DA, OS, Voicemail & Transport to OS platform MCI provided DA, OS, Voicemail, Transport & all non-local calls. Ilec provides Local switch, 911 & Local	7 8 9 10 11	7 8 9 10 11	7 8 9 10 11	7 8 9	7 8 9	7	7		6	5		3	2		
	ILEC provides switching, switch'g intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI provides switching intelligence ILEC provides switching & Intraswitch calls only. MCI provides switching intelligence & signaling Unbundled Loop MCI provides feeder & switching (ILEC provides unbundled Distribution) MCI provides distribution & switching (ILEC provides Unbundled feeder) MCI provides switching & loop. ILEC provides build'g Entr. Facilities.	intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI provides switching intelligence ILEC provides switching & Intraswitch calls only. MCI provides switching intelligence & signaling Unbundled Loop MCI provides feeder & switching (ILEC provides unbundled Distribution) MCI provides distribution & switching (ILEC provides	intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI provides switching intelligence ILEC provides switching & Intraswitch calls only. MCI provides switching intelligence & signaling Unbundled Loop MCI provides feeder & switching (ILEC provides unbundled	intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI provides switching intelligence ILEC provides switching & Intraswitch calls only. MCI provides switching intelligence & signaling	intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI provides switching intelligence ILEC provides switching & Intraswitch calls only. MCI provides	intelligence, signaling & Intraswitch calls only ILEC provides switching, signaling & Intraswitch calls only. MCI	intelligence, signaling & Intraswitch	U.C. mandala a situati	Transport & all non-local calls. Ilec provides Local switch, 911 & Local			Plus MCI branded DA, OS	Plus MCI Provides Voice Mail		MCI can progressively replace Unbundled Network Elements provided by the ILEC with elements provide by MCI, until the service becomes facilities based. This matrix depicts this migration process.

Unbundled Network Elements Migration Matrix



Component Parts of Unbundled Switching

- → Line port, trunk port and switching matrix
- → Customer Billing Records
- → Carrier Billing

Platform Trials

Switched Combination of Elements Trials

→ Customized routing

- 411, 0+ and 0-, 611

- NXX

- PIC

- Signalling
- → MCIm specified Line Class Codes
- Data specification interfaces
- → Network Operations Interfaces
- → Traffic and Quality of Service Reports
- Transport Interface
- → Overflow and Congestion Relief
- → Multiple Switch Vendors



Not just another element

 Networks consist of two parts, Transport and Switching. Most of the other unbundled elements are variations of transport.

→ Transport

→ Switching

- Dedicated
- Common
- Loops
- Cross Connect
- Collocation
- Dark Fiber
- Rights of Way
- Conduits



Opportunities and Benefits

- → Where MCI has a fiber ring but no switch
- → Relieve congested switches
- → Locations with no switch or fiber ring
- → Timing Speed to Market
- → Capital cost v's facilities
- → Service Flexibility v's resale eg. DA, OS, Loop,
- → Vendor Options v's resale chose optimum provider of each element



Approach

Walk before we can run. Replace different elements in trials with different ILECs.

- → Ameritech Illinois, Beverly DA, OS, MCI NXXs
- → Ameritech Michigan, Detroit Loop, Transport, MCI IXC
- → PacBell DA, OS, MCI NXXs, Intra LATA toll
- → Nynex DA, OS, MCI NXXs, Voicemail
- → Bell South (unbundled tandem switching) DA, OS, MCI NXXs,.

Future - LATA wide approach, AIN, incoming traffic



Setting Up the Switch Element - Step 1

Final Office	Camilea Data
End Office	Service Date

	ILEC to Carry	MCI Spec.	Custom	Routing			
Call Type	Checked if	transport	Number of Network Ports Required	"Z" end transport address	Signallin g	Directio nal	Digit Pulsing
DA		none	DS1	none	SS7	On e	10
os	· · · · · · · · · · · · · · · · · · ·	DSO	DSO,	CLLI	MF	On e	7
Emergency Services	1						
Local Inter- Switch to MCIm NXX		none	DS1	CLLI	SS7	Two	10
Localto ILEC NXX	1						
Local to CLEC NXX		DS1	DS1	CLLI	SS7	Two	10
ntra LATA PIC to MCIT		none	DS1	CLLI	SS7	On e	10
ntra LATA PIC to AT&T	1						



Chronology

Illinois - Beverly

- → 23 May 97 BFR submitted by MCI
- → 2 June 97 Follow-up meeting
- → 17 June 97 Pricing Meeting
- → 26 June 97 Partial BFR response from AIT
- → 11 July 97 MCI place initial network setup orders using ASRs and Questionnaires

Michigan - Detroit

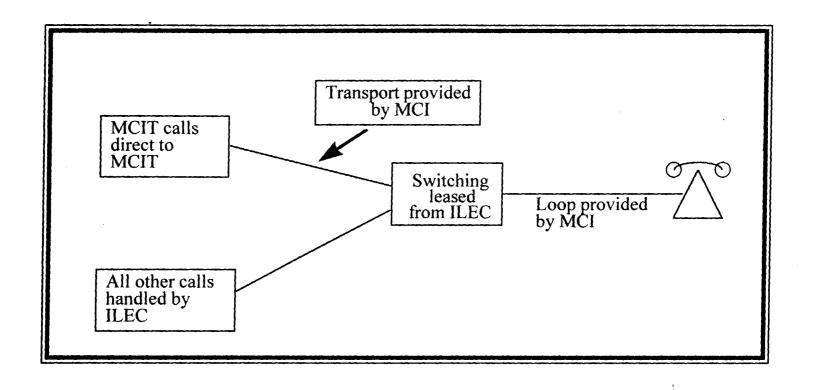
- → 20 June 97 MCI submitted Line Class Code Questionnaires
- → 20 June 97 MCI submitted order for line side port
- → 25 June 97 MCI submitted ASR for trunk side port
- → 7 July 97 MCI requested due date
- → 21 July 97 AIT FOC date for trunk side port



Current Problems in MI and IL

- → NRCs excessive and unclear
- → No specification of applicable call charging structure
- → AIT required BFR Process Unnecessary
- → No Ordering Process
- → No timescales
- → No traffic reporting
- → No Data change process
- → Refuse to allow overflow routing for congestion relief and blockage

Detroit Michigan Trial



Beverly Illinois Trial

